July 08, 2022

NHPC Limited: Rating reaffirmed

Summary of rating action

Instrument*	Previous Rated Amount (Rs. crore)	Current Rated Amount (Rs. crore)	Rating Action
Long-term bond programme	5,299.30	5,299.30	[ICRA]AAA(Stable); reaffirmed
Long-term bond programme	1,411.11	-	[ICRA]AAA(Stable); reaffirmed and withdrawn
Total	**6,710.41**	**5,299.30**	

**Instrument details are provided in Annexure-1*

Rationale

ICRA has reaffirmed and withdrawn the long-term rating of [ICRA]AAA(Stable) assigned to the Rs. 533.39-crore bonds of NHPC Limited (NHPC) as there are no outstanding dues against the same. The redemption payments have been independently verified. ICRA has also reaffirmed and withdrawn the long-term rating of [ICRA]AAA(Stable) assigned to the Rs. 877.72-crore bonds of NHPC as the rated bonds have not been placed. The ratings have been withdrawn at the request of the company.

The rating action factors in the strategic role of NHPC Limited (NHPC) in the hydropower generation sector as India's largest power generation utility and its strategic importance to the Government of India (GoI) which held a 70.95% stake in the entity as on March 31, 2022. The rating also factors in the low business risk for the company because of the cost-plus tariff structure for all its operational assets, ensuring regulated returns.

ICRA also favourably notes the competitive tariff level for the company's power plants and strong operating efficiencies, reflected in its plant availability factor (PAF) over the years. Further, the rating continues to factor in the healthy track record of power generation from the operational hydel power projects, aided by a favourable hydrology.

The company's credit profile is also supported by a favourable capital structure, reflected in a debt-to-equity ratio of 0.74 times on a consolidated basis, and a strong liquidity as evident from cash and bank balances of Rs. 3,186 crore on a consolidated basis as on March 31, 2022. Further, the company continues to benefit from the long tenure of debt, including subordinate debt from the GoI, at a low interest rate for some projects in Jammu and Kashmir (J&K).

NHPC has superior financial flexibility for having a strong parent, and a long life of its hydro projects, which support its liquidity. ICRA expects its revenue and cash flows to scale up significantly post the commissioning of its two critical projects - Subansiri Lower and Parbati II - over the next 12-18 months.

ICRA, however, takes cognisance of the execution risks, including the risk of time and cost overruns, inherent in greenfield hydropower projects. Several of NHPC's recent and ongoing hydropower projects have seen significant time and cost overruns and further overruns cannot be ruled out. However, construction work on Subansiri Lower 2,000-MW HEP, which was stalled since December 2011, was resumed in October 2019 and it is expected to be commissioned in FY2024. Two units of 200 MW each of the Parbati II (800 MW) hydropower project were synchronised, and the project is expected to be commissioned in Q4 FY2023. Apart from the Subansiri lower and Partbati II project, NHPC is executing various thermal projects with a total capacity aggregating to 1,470 under standalone and subsidiaries.

Given the large-sized projects under construction, the company's ability to commission these projects on time and within the budgeted cost without compromising on its annual dividend payout, along with requisite approval from the CERC remains crucial from a credit perspective. ICRA also takes into consideration the counterparty credit risk associated with the exposure to state distribution utilities like J&K and UPPCL.

The Stable outlook on the [ICRA]AAA rating reflects ICRA's opinion that NHPC will be able to sustain its generation performance with a satisfactory collection efficiency. Moreover, its under-construction projects are likely to be completed without significant time and cost overruns.

Key rating drivers and their description

Credit strengths

Significant ownership of GoI and support extended by Government - NHPC, with a GoI ownership of 70.95%, is the largest hydropower company in the country and a Mini Ratna Category I public sector undertaking (PSU). The company has an installed capacity of 5,551 MW on a standalone basis (including 50-MW solar and 50-MW wind power capacity) and 7,071 MW (including 1,520 MW of its 51.08% owned subsidiary, NHDC) on a consolidated basis. It plays an important role in implementing the GoI's planned capacity addition in the hydel power sector. The strategic importance of NHPC is also evident from the long-term loans extended by the GoI at concessional rates for some of its hydropower projects in Jammu and Kashmir (J&K).

Regulated tariff ensures stable returns - The tariffs for NHPC's hydropower projects are determined as per the Central Electricity Regulatory Commission's (CERC) regulations on a cost-plus basis, which ensures recovery of depreciation, interest on long-term loan and working capital loan, return on equity and operation and maintenance (O&M) expenses. The tariff norms are notified for a block of five years. The current set of tariffs for the FY2020-FY2024 period was notified on March 7, 2019. The tariff norms are largely in line with the norms for FY2014-FY2019 with return on equity at 15.50% (pre-tax), higher operation and maintenance expenses, lower escalation for O&M expenses, etc. The recovery of fixed cost is subject to normative plant availability for each plant, as notified by the CERC. NHPC has demonstrated a satisfactory operational performance in the past.

Stable operational efficiency - NHPC has showcased superior operating performance across its portfolio of projects, enabling it to not only earn a regulated return on equity, but also incentives for superior plant availability as well as higher-than-design energy (secondary energy) generation. It has consistently earned incentives of Rs 424.1 crore in FY2022, Rs 409.6 crore in FY2021 and Rs 360.9 crore in FY2020.

Comfortable financial risk profile - The comfortable financial risk profile of NHPC is evident from a gearing of 0.74 times, interest coverage ratio of 10.26 times and total debt/ OPBDITA of 5.15 times on a consolidated basis as on March 31, 2022. However, the company's financial profile may deteriorate, given the large debt-funded capex pipeline over the medium to long term. The ability to significantly scale up its cash flows post the commissioning of its two critical projects - Subansiri Lower and Parbati II - remains key monitorable.

Policy measures to promote hydropower sector a positive - The Ministry of Power, vide its notification dated March 8, 2019, announced several measures to promote the hydropower sector in the country. These include the declaration of large hydropower projects (>25 MW) as a renewable energy source, hydropower purchase obligation as a separate entity within the non-solar renewable purchase obligation, tariff rationalisation steps like back loading of tariff, increase in the life of a project from 35 years to 40 years, increasing the debt repayment period to 18 years, budgetary support for flood moderation/storage hydro electric projects and budgetary support for cost of enabling infrastructure (i.e. roads/ bridges). In a notification dated January 29, 2021, the Ministry included the long-term trajectory for hydropower purchase obligations (HPO). Hydropower projects commissioned on or after March 08, 2019 and up to March 31, 2030 shall be eligible for HPO. Power generated from Parbati (800 MW) and Subhansiri (2000 MW) will be eligible for meeting the HPO obligations of state discoms, which adds to its attractiveness and affordability despite the expected levelised tariff being on the relatively high side.

Grid balancing role of hydropower- With the GoI's present initiative of extensive renewable energy development, particularly large-scale deployment of solar power, hydropower would be required for grid balancing/stability. Hydropower plays a crucial role in meeting the peak power requirements of the system.

Credit challenges

Counterparty credit risk on account of exposure to state distribution utilities - NHPC is exposed to state power distribution utilities with relatively weak credit profiles, which may impact its collection efficiency. The debtors (excluding unbilled revenue) declined to Rs. 3,214 crore as on March 31, 2022 from Rs. 3,499 crore for the prior year on a consolidated basis, due to improved payments from state distribution utilities on account of the liquidity scheme by PFC/REC under Atmanirbhar Bharat for various state discoms. The presence of a letter of credit and coverage under TPA mitigates the counterparty credit risk to some extent.

Execution risk associated with under-construction projects - NHPC is constructing two hydroelectric projects on a standalone basis, namely Parbati II and Subansiri Lower, with a total capacity of 2,800 MW. Parbati II (800 MW) is expected to be commissioned in Q4 FY2023, while Subansiri Lower (2000 MW), which was stuck since December 2011, resumed construction in October 2019 and is expected to be commissioned in FY2024. Additionally, the company is executing the 500-MW Lanco Teesta project, the 200-MW Jal Power Rangit project and the 850-MW Ratle project in J&K through its subsidiaries. The company also has several projects under clearance. NHPC's hydropower projects, including Parbati II and Subansiri Lower, have witnessed significant time and cost overruns in the past. Timely completion of the under-construction projects without further material time and cost overruns, and approval of the capital cost for tariff determination by the CERC, will remain key rating sensitivities.

Cost-competitive power from new projects - The under-construction power projects have high capital cost per MW, which will make the cost of power from such projects unattractive compared to thermal power projects and the prevailing wind/solar tariffs. Therefore, the ability of the company to complete the projects on time and within the budgeted cost, and the rationalisation of tariff through various measures will be critical to ensure the cost competitiveness of power. It may be noted that hydropower is required for grid stabilisation and hence it can command a premium over other sources of power. Moreover, the recent measures by the Ministry of Power, including hydropower purchase obligation, are expected to increase the demand for power from hydropower projects, going forward.

Regulatory risk due to cost-plus regime - The tariff for the company's hydel power projects is determined as per CERC norms that are revised every five years. The latest tariff norms were notified on March 7, 2019 for FY2020-24, which provide visibility for the period. However, in case stringent norms are finalised in the future (for instance, with lower return on equity), the company's profitability may be impacted.

Liquidity position: Strong

The liquidity of the company is strong. The cost-plus tariff and superior operating performance is expected to result in strong coverage indicators. While free cash flows will remain subdued on account of the consistent capital expenditure to be incurred over the next few years (Rs. 8,000 – Rs. 9,000 crore) and sizeable repayment obligations (Rs 1,527 crore in FY2023, Rs 1,824 crore in FY2024 and Rs 2703 crore in FY2025), ICRA takes comfort from the superior financial flexibility of the company for raising project debt in a timely manner and its superior refinancing ability by virtue of its strong parentage and the long economic life of the hydro projects (40 years as per prevailing CERC regulations). The company had cash and liquid investments of Rs 3,186 crore and unutilised cash credit limits of Rs 925 crore as on March 31, 2022 on a consolidated basis.

Rating sensitivities

Positive factors – Not Applicable

Negative factors – The rating could be downgraded if the company is able to reduce the debtors from the current levels and/or there is significant disapproval for cost and time overrun for under-construction projects by the CERC/SERC. The rating could also be revised due to a material change in the regulatory cost-plus regime for determining the tariffs of the hydropower projects, impacting the company's returns. Negative pressure on the rating could also arise from a material change in the shareholding of the GoI and/or change in linkage with GoI.

Analytical approach

Analytical Approach	Comments
Applicable rating methodologies	Corporate Credit Rating Methodology Impact of Parent or Group support on an Entity's Credit Rating Policy on Withdrawal of Credit Ratings
Parent/Group support	The rating derive strength from majority ownership by the Government of India (70.95% as on March 31, 2022) in NHPC, given its strategic importance and significant scale of operations in hydro power sector in India.
Consolidation/Standalone	The rating is based on consolidated financial statements of the company. Details in Annexure-2.

About the company

NHPC, a Mini Ratna category I public sector utility, is the GoI's flagship hydroelectric generation company. As on March 31, 2022, the GoI's shareholding in the company was 70.95%. It is the largest HEP developer in India with an installed capacity of 5,551 MW on a standalone basis and 7,071 MW on a consolidated basis (including 1,520 MW of its 51.08%-owned subsidiary NHDC) as on March 31, 2022. The company supplies power to distribution utilities, mainly in northern, eastern and north-eastern India under long-term PPAs.

Key financial indicators (audited)

NHPC Consolidated	FY2021	FY2022
Operating income (Rs. crore)	10,193.8	9460.7
PAT (Rs. crore)	3,587.6	3,557.7
OPBDIT/OI (%)	57.8%	57.7%
PAT/OI (%)	35.2%	39.9%
Total outside liabilities/tangible net worth (times)	1.0	1.1
Total debt/OPBDIT (times)	4.3	5.2
Interest coverage (times)	9.1	10.3

PAT: Profit after Tax; OPBDIT: Operating Profit before Depreciation, Interest, Taxes and Amortisation
Note: Amount in Rs. crore; All calculations are as per ICRA Research
Source: Annual Reports and ICRA Research

Status of non-cooperation with previous CRA: Not applicable

Any other information: None

Rating history for past three years

	Instrument	Current rating (FY2023)				Chronology of rating history for the past 3 years			
		Type	Amount rated (Rs. crore)	Amount outstanding as on May 31, 2022 (Rs. crore)	Date & rating in	Date & rating in FY2022	Date & rating in FY2021	Date & rating in FY2020	
					July 08, 2022	July 09, 2021	July 24, 2020	Sep 30, 2019	April 23, 2019
1	Long term bonds programme	Long-term	5,299.30	5,299.30	**[ICRA] AAA (Stable)**	[ICRA] AAA (Stable)	[ICRA] AAA (Stable)	[ICRA] AAA (Stable)	[ICRA] AAA (Stable)
2	Long term bonds programme	Long-term	533.39	-	**[ICRA] AAA**	[ICRA] AAA (Stable)	[ICRA] AAA (Stable)	[ICRA] AAA (Stable)	[ICRA] AAA (Stable)

					(Stable); withdrawn				
3	Unplaced bond programme	Long-term	877.72	-	**[ICRA] AAA (Stable); withdrawn**	[ICRA] AAA (Stable)	[ICRA] AAA (Stable)	[ICRA] AAA (Stable)	[ICRA] AAA (Stable)

**Outstanding balance/sanctioned amount as on May 31, 2022*

Complexity level of the rated instruments

Instrument	Complexity Indicator
Bonds programme	Very Simple

The Complexity Indicator refers to the ease with which the returns associated with the rated instrument could be estimated. It does not indicate the risk related to the timely payments on the instrument, which is rather indicated by the instrument's credit rating. It also does not indicate the complexity associated with analysing an entity's financial, business, industry risks or complexity related to the structural, transactional or legal aspects. Details on the complexity levels of the instruments are available on ICRA's website: www.icra.in

Annexure-1: Instrument details

ISIN No	Instrument Name	Date of Issuance / Sanction	Coupon Rate	Maturity Date	Amount Rated (RS Crore)	Current Rating and Outlook
INE848E07120	LT Bonds- Q Series	12-Mar-12	9.25%	12-Mar-23	105.5	[ICRA]AAA (Stable)
INE848E07138	LT Bonds- Q Series	12-Mar-12	9.25%	12-Mar-24	105.5	[ICRA]AAA (Stable)
INE848E07146	LT Bonds- Q Series	12-Mar-12	9.25%	12-Mar-25	105.5	[ICRA]AAA (Stable)
INE848E07153	LT Bonds- Q Series	12-Mar-12	9.25%	12-Mar-26	105.5	[ICRA]AAA (Stable)
INE848E07161	LT Bonds- Q Series	12-Mar-12	9.25%	12-Mar-27	105.5	[ICRA]AAA (Stable)
INE848E07252,	LT Bonds- R Series- Tranche 1	11-Feb-13	8.70%	11-Feb-23	6.85	[ICRA]AAA (Stable)
INE848E07260,	LT Bonds- R Series- Tranche 1	11-Feb-13	8.70%	11-Feb-24	6.85	[ICRA]AAA (Stable)
INE848E07492,	LT Bonds- R Series- Tranche 1	11-Feb-13	8.70%	11-Feb-25	6.85	[ICRA]AAA (Stable)
INE848E07500,	LT Bonds- R Series- Tranche 1	11-Feb-13	8.70%	11-Feb-26	6.85	[ICRA]AAA (Stable)
INE848E07344,	LT Bonds- R Series- Tranche 2	11-Feb-13	8.85%	11-Feb-23	31.84	[ICRA]AAA (Stable)
INE848E07351,	LT Bonds- R Series- Tranche 2	11-Feb-13	8.85%	11-Feb-24	31.84	[ICRA]AAA (Stable)
INE848E07369,	LT Bonds- R Series- Tranche 2	11-Feb-13	8.85%	11-Feb-25	31.84	[ICRA]AAA (Stable)
INE848E07377,	LT Bonds- R Series- Tranche 2	11-Feb-13	8.85%	11-Feb-26	31.84	[ICRA]AAA (Stable)
INE848E07385	LT Bonds- R Series- Tranche 2	11-Feb-13	8.85%	11-Feb-27	31.84	[ICRA]AAA (Stable)
INE848E07435,	LT Bonds- R Series- Tranche 3	11-Feb-13	8.78%	11-Feb-23	89.2	[ICRA]AAA (Stable)
INE848E07443,	LT Bonds- R Series- Tranche 3	11-Feb-13	8.78%	11-Feb-24	89.2	[ICRA]AAA (Stable)
INE848E07450,	LT Bonds- R Series- Tranche 3	11-Feb-13	8.78%	11-Feb-25	89.2	[ICRA]AAA (Stable)
INE848E07468,	LT Bonds- R Series- Tranche 3	11-Feb-13	8.78%	11-Feb-26	89.2	[ICRA]AAA (Stable)
INE848E07476,	LT Bonds- R Series- Tranche 3	11-Feb-13	8.78%	11-Feb-27	89.2	[ICRA]AAA (Stable)
INE848E07484	LT Bonds- R Series- Tranche 3	11-Feb-13	8.78%	11-Feb-28	89.2	[ICRA]AAA (Stable)
INE848E07518	Tax Free Bonds-13-1A	2-Nov-13	8.18%	2-Nov-23	50.81	[ICRA]AAA (Stable)
INE848E07542	Tax Free Bonds-13-1B	2-Nov-13	8.43%	2-Nov-23	60.77	[ICRA]AAA (Stable)
INE848E07526	Tax Free Bonds-13-2A	2-Nov-13	8.54%	2-Nov-28	213.12	[ICRA]AAA (Stable)
INE848E07559	Tax Free Bonds-13-2B	2-Nov-13	8.79%	2-Nov-28	85.61	[ICRA]AAA (Stable)
INE848E07534	Tax Free Bonds-13-3A	2-Nov-13	8.67%	2-Nov-33	336.07	[ICRA]AAA (Stable)
INE848E07567	Tax Free Bonds-13-3B	2-Nov-13	8.92%	2-Nov-33	253.62	[ICRA]AAA (Stable)
INE848E07AH8	LT Bonds- W1 Series	15-Sep-17	6.91%	15-Sep-22	300	[ICRA]AAA (Stable)
INE848E07AI6	LT Bonds- W2 Series	15-Sep-17	7.35%	15-Sep-23	150	[ICRA]AAA (Stable)
INE848E07AJ4	LT Bonds- W2 Series	15-Sep-17	7.35%	15-Sep-24	150	[ICRA]AAA (Stable)
INE848E07AK2	LT Bonds- W2 Series	15-Sep-17	7.35%	15-Sep-25	150	[ICRA]AAA (Stable)
INE848E07AL0	LT Bonds- W2 Series	15-Sep-17	7.35%	15-Sep-26	150	[ICRA]AAA (Stable)
INE848E07AM8	LT Bonds- W2 Series	15-Sep-17	7.35%	15-Sep-27	150	[ICRA]AAA (Stable)
INE848E07AO4	LT Bonds- Y Series	7-Oct-19	7.50%	7-Oct-25	300	[ICRA]AAA (Stable)
INE848E07AP1	LT Bonds- Y Series	7-Oct-19	7.50%	7-Oct-26	300	[ICRA]AAA (Stable)
INE848E07AQ9	LT Bonds- Y Series	7-Oct-19	7.50%	7-Oct-27	300	[ICRA]AAA (Stable)
INE848E07AR7	LT Bonds- Y Series	7-Oct-19	7.50%	7-Oct-28	300	[ICRA]AAA (Stable)
INE848E07AS5	LT Bonds- Y Series	7-Oct-19	7.50%	6-Oct-29	300	[ICRA]AAA (Stable)
INE848E07AT3	LT Bonds- Y1 Series	3-Jan-20	7.38%	3-Jan-26	100	[ICRA]AAA (Stable)
INE848E07AU1	LT Bonds- Y1 Series	3-Jan-20	7.38%	2-Jan-27	100	[ICRA]AAA (Stable)
INE848E07AV9	LT Bonds- Y1 Series	3-Jan-20	7.38%	3-Jan-28	100	[ICRA]AAA (Stable)
INE848E07AW7	LT Bonds- Y1 Series	3-Jan-20	7.38%	3-Jan-29	100	[ICRA]AAA (Stable)
INE848E07AX5	LT Bonds- Y1 Series	3-Jan-20	7.38%	3-Jan-30	100	[ICRA]AAA (Stable)
INE848E07112	LT Bonds- Q Series	12-Mar-12	9.25%	12-Mar-22	105.5	[ICRA]AAA (Stable); withdrawn
INE848E07245	LT Bonds- R Series- Tranche 1	11-Feb-13	8.70%	11-Feb-22	6.85	[ICRA]AAA (Stable); withdrawn

ISIN No	Instrument Name	Date of Issuance / Sanction	Coupon Rate	Maturity Date	Amount Rated (RS Crore)	Current Rating and Outlook
INE848E07336	LT Bonds- R Series- Tranche 2	11-Feb-13	8.85%	11-Feb-22	31.84	[ICRA]AAA (Stable); withdrawn
INE848E07427	LT Bonds- R Series- Tranche 3	11-Feb-13	8.78%	11-Feb-22	89.2	[ICRA]AAA (Stable); withdrawn
INE848E07AG0	LT Bonds- W1 Series	15-Sep-17	6.91%	15-Sep-21	300	[ICRA]AAA (Stable); withdrawn
-	Unplaced bond programme	-	-	-	877.72	[ICRA]AAA (Stable); withdrawn

Note: List of outstanding ISIN as on May 31, 2022

Source: *Company*

Annexure-2: List of entities considered for consolidated analysis

Company Name	NHPC Ownership	Consolidation Approach
NHPC Limited	100.00% (rated entity)	Full Consolidation
NHDC Limited	51.08%	Full Consolidation
Loktak Downstream Hydroelectric Corporation Limited	74.83%	Full Consolidation
Bundelkhand Saur Urja Limited	86.67%	Full Consolidation
Lanco Teesta Hydro Power Limited	100.00%	Full Consolidation
Jal Power Corporation Limited	100.00%	Full Consolidation
Ratle Hydroelectric Power Corporation	73.53%	Full Consolidation
Chenab Valley Power Projects Limited	55.13%	Equity Method
National High Power Test Laboratory Private Limited	20.00%	Equity Method

Source: *Company*

Note: *ICRA has taken a consolidated view of the parent (NHPC), its subsidiaries and Joint Ventures while assigning the ratings.*

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